Selected Answers

Activity 1-1 (p. 4)
1. 3
2. 13
3. 31
4. 45
5. Possible answer [see graphic]
6. Possible answer [see graphic]

Activity 1-2a (p. 5)
1. Possible answer: *x* is a short letter, *y* is a long letter.
2. a. $5x$
b. $5y$
c. x^2
d. y^2
e. xy
3. Possible answer: It is a square that is *x* long and *x* wide.

Activity 1-2b (p. 6)
1. a. x^3
b. x^2y
c. xy^2
d. y^3
2. Possible answer: It is a cube with edges that are *y* long.

Activity 1-3 (p. 7)
1–2. [see graphic]
3–4. Teacher, check

Activity 1-5a (p. 9)
1. $3x$
2. $2y + 3$
3. $3x^2$
4. $y^2 + 5y + 3$
5. $xy + 5x + x + 5 + 1$ or $xy + 6x + 6$
6. $x^2 + 4$
7. $y^2 + 2$
8. $xy + 5$

Activity 1-5b (p. 10)
1. $xy^2 + 5x + 5 + 1$ or $xy^2 + 5x + 6$
2. $2x^2y + y + 3$
3. $y^3 + 5y + 5$
4. $y^3 + xy^2 + x^2y + xy$
5. $2xy^2 + x^2 + 3x + 11$
6. $y^3 + x^3 + 1$

Challenge 1 (p. 11)
1. $2 \cdot 5 = 10$
2. $3 \cdot 3 = 9$
3. $3 \cdot 5 = 15$
4. impossible
5. $2 \cdot 10 = 20$, $4 \cdot 5 = 20$
6. $3 \cdot 4 = 12$, $2 \cdot 6 = 12$
7. $3 \cdot 10 = 30$, $5 \cdot 6 = 30$

Activity 2-1 (p. 13)

1.	a. 2	b. 4	c. 0
2.	a. 12	b. 16	c. 2
3.	a. 5	b. 3	c. 8
4.	a. 7	b. 19	c. 10
5.	a. 7	b. 11	c. 6
6.	a. 45	b. 25	c. 26

Activity 2-2 (p. 14)

1.	a. 1	b. 4	c. 25
2.	a. 12	b. 19	c. 3
3.	a. 1	b. 2	c. 6
4.	a. 9	b. 27	c. 53
5.	a. 25	b. 38	c. 11
6.	a. 19	b. 25	c. 70

Activity 2-3 (p. 15)
1. $4y$
2. $x + 4$
3. $y + 2x$
4. $2y + 3x + 2$
5. $3y + 4x$
6. $4y + 4x + 6$

Activity 2-4 (p. 16)
1. $3x^2 + 2x + 6$
2. $2y^2 + 2x + 3$
3. $x^2 + 3x + 3$
4. $3x^2 + 2y + 5$
5. $3x^2 + 2x + 10$
6. $2xy + 3x^2 + y$

Activity 2-5 (p. 17)
1. 8
2. 22

3.	a. 14	b. 10	c. 15
4.	a. 8	b. 4	c. 6

5. $2x^2y + 2xy + 3y$
6. $x^3 + 2x^2 + 6x + 6$

Challenge 2 (p. 18)
1. a = 31; p = 32
2. a = 31; p = 24
3. a = 31; p = 28

Activity 3-1 (p. 20)
1. 10 – 5; 5
2. 7–2; 5

Activity 3-2 (p. 21)
1. 12 – 6 = 32 –26; 6 = 6; True
2. 12 – 33 = 16 – 31; –21 = – 20; False

Activity 3-3 (p. 22)
1. 25 – 6 = 19
2. 5 – 6 = –1
3. 5 – 2 + 1 – 5 = –1
4. 4 – 6 = – 2
5. 11 – 4 = 7
6. 10 – 25 = –15

Activity 3-4 (p. 23)
1. –4, negative four
2. –5, negative five
3. $-2x$, opposite of $2x$
4. $-5x + (-2)$, the opposite of five *x* plus negative two
5. $x + 1 - xy$ plus one subtract *xy*
6. $y^2 - 5$, *y*-squared subtract five

Challenge 3 (p. 24)
1. Answers will vary. Sample answers:
3
5 – 2 (2 in minus area)
5 – 2 (2 upstairs)
–(2 – 5)
2. Sample answers:
–5 – 3
–5 –(5 – 2)
–10 + 2
–12 + 4

Activity 4-1 (p. 27)
1. –3 [see graphic]
2. –18 [see graphic]
3. 1 [see graphic]

Activity 4-2 (p. 28)
1. 6 [see graphic]
2. –20 [see graphic]
3. –18 [see graphic]

Activity 4-3 (p. 29)
1. 5 [see graphic]
2. –18 [see graphic]
3. –3 [see graphic]
4. –18 [see graphic]
5. 0 [see graphic]
6. 25 [see graphic]

Challenge 4 (p. 11)
1. v = 1, s.a. = 6
2. v = 25, s.a. = 70